

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1-28. (Canceled)

29. (Currently amended) A method of confirming ownership of an address by a first device to a second device, the method comprising:

- (a) identifying a number of identifications allowed;
- (b) identifying a secret value at a first device, wherein the number of identifications allowed is based on a maximum number of times the secret value may be used before the secret value is changed;
- (c) calculating a first address value based on the identified secret value and the identified number of identifications allowed;
- (d) generating an address as a concatenation of a second address value and the calculated first address value;
- (e) sending the generated address from the first device to a second device;
- (f) receiving a request to confirm ownership of the generated address from the second device at the first device;
- (g) identifying a number of confirmations previously performed between the first device and the second device;
- (h) calculating a first value based on the identified secret value and the identified number of confirmations performed; [[and]]
- (i) sending a first message from the first device to the second device, the first message including the calculated first value so that the second device can confirm ownership of the generated address by the first device;
- (j) comparing the identified number of confirmations performed with the identified number of identifications allowed; and

(k) based on an outcome of the comparison, identifying a second secret value at the first device and repeating (c)-(i) replacing the identified secret value with the identified second secret value.

30. (Previously Presented) The method of claim 29, further comprising receiving a router advertisement message including an address prefix, wherein the second address value comprises the address prefix.

31. (Currently amended) The method of claim 29, further comprising repeating (f), (g), (h), (i), (j), and (k).

32. (Previously Presented) The method of claim 31, wherein the first message further includes the identified number of confirmations performed.

33. (Canceled)

34. (Canceled)

35. (Previously Presented) The method of claim 29, wherein the first message comprises a binding update message sent using a mobile Internet protocol version 6 protocol.

36. (Currently amended) A communication device, the communication device comprising:

a processor;

a communication interface operably coupled to the processor; and

a computer-readable medium including computer-readable instructions stored therein that, upon execution by the processor, perform operations comprising

(a) identifying a number of identifications allowed;

(b) identifying a secret value, wherein the number of identifications allowed is based on a maximum number of times the secret value may be used before the secret value is changed;

(c) calculating a first address value based on the identified secret value and the identified number of identifications allowed;

(d) generating an address as a concatenation of a second address value and the calculated first address value;

(e) sending the generated address to a second device via the communication interface;

(f) receiving a request to confirm ownership of the generated address from the second device via the communication interface;

(g) identifying a number of confirmations previously performed between the communication device and the second device;

(h) calculating a first value based on the identified secret value and the identified number of confirmations performed; and

(i) sending a first message to the second device via the communication interface, the first message including the calculated first value so that the second device can confirm ownership of the generated address;

(j) comparing the identified number of confirmations performed with the identified number of identifications allowed; and

(k) based on an outcome of the comparison, identifying a second secret value and repeating (c)-(i) replacing the identified secret value with the identified second secret value.

37. (Previously Presented) The communication device of claim 36, wherein the operations further comprise receiving a router advertisement message including an address prefix, wherein the second address value comprises the address prefix.

38. (Currently amended) The communication device of claim 36, wherein the operations further comprise repeating (f), (g), (h), (i), (j), and (k).

39. (Previously Presented) The communication device of claim 38, wherein the first message further includes the identified number of confirmations performed.

40. (Canceled)

41. (Previously Presented) The communication device of claim 36, wherein the first message comprises a binding update message sent using a mobile Internet protocol version 6 protocol.

42. (Currently amended) A computer-readable medium including computer-readable instructions that, upon execution by a processor, cause the processor to calculate information that confirms ownership of an address by a first device to a second device, the instructions configured to cause a computing device to:

- (a) identify a number of identifications allowed;
- (b) identify a secret value, wherein the number of identifications allowed is based on a maximum number of times the secret value may be used before the secret value is changed;
- (c) calculate a first address value based on the identified secret value and the identified number of identifications allowed;
- (d) generate an address as a concatenation of a second address value and the calculated first address value;
- (e) send the generated address to a second device;
- (f) receive a request to confirm ownership of the generated address from the second device;
- (g) identify a number of confirmations previously performed between a first device and the second device;
- (h) calculate a first value based on the identified secret value and the identified number of confirmations performed; and
- (i) send a first message to the second device, the first message including the calculated first value so that the second device can confirm ownership of the generated address;
- (j) compare the identified number of confirmations performed with the identified number of identifications allowed; and

(k) based on an outcome of the comparison, identify a second secret value and repeat (c)-(i) replacing the identified secret value with the identified second secret value.

43. (Previously Presented) The computer-readable medium of claim 42, wherein the instructions are further configured to cause the computing device to receive a router advertisement message including an address prefix, wherein the second address value comprises the address prefix.

44. (Currently amended) The computer-readable medium of claim 42, wherein the instructions are further configured to cause the computing device to repeat (f), (g), (h), (i), (j), and (k).

45. (Previously Presented) The computer-readable medium of claim 44, wherein the first message further includes the identified number of confirmations performed.

46. (Canceled)

47. (Previously Presented) The computer-readable medium of claim 42, wherein the first message comprises a binding update message sent using a mobile Internet protocol version 6 protocol.

48-89. (Cancelled)